

# Simple Living: Simplify and Reduce

A journey to simplifying and reducing our footprint

## 90% Rules



*Welcome to our 90% emissions reduction project.* First of all, you'll notice that we're using the number 90%, not 93 or 94% - there are a couple of reasons for that, but the first and most important is that the goal is not to drive ourselves crazy. If we're all going to do this, we need it to be comparatively easy - I think a lot of us will get bored and frustrated if we have to keep complicated logs. But using 1/10 of what is used by the average American makes calculations easier for everyone. I've certainly no objection if all of us, or some of us get down even lower, but 90% is still a huge accomplishment - it puts your emissions on par with the average Chinese peasant.

### **The Rules of the Game are as follows:**

1. Everyone can play. Even if you only think you can make a major reduction in a few categories, or 1, or even none, you are invited to join us. Every drop in your emissions is a huge accomplishment, and another person who can stand up and say "I can do it, even without any systemic help - therefore, we can all do it."

The time period is 1 year - the goal is to reach a 90% reduction (*or the best each of us can do*) \*AND KEEP IT THERE\* after 1 year. That is, we're not dropping our emissions instantly and then going back to business as usual later - the goal is to use this year to figure out what we need to do, what kind of adaptations we need, and how to change things.

Ideally, we'll all calculate and post our approximate usage right now, as a baseline.

Every week we post an update - you can put yours on your blog (email your blog links to Emme/Miranda at [simplerreduce@charter.net](mailto:simplerreduce@charter.net)), or update on the comments section of either of our blogs. Let us know how you are doing, what you are having trouble with, what your numbers are, what you want help with, what your best ideas are.

Otherwise, you are in charge of making choices. We have left categories like health care and housing out of this, on the assumption that you aren't going to buy a new house, or give up needed medical attention. If you want to include some of these issues, great. If you need to opt out of a category altogether, fine. If you disagree with my assessment, say, of how things should be calculated, certainly tell me - you may have a better method than I do - but you can also feel free to make your calculations differently.

If you live in another country than the US, you'll have to do your own baseline - it isn't very hard, and your government websites should have the information. For Canada, Australia and the US, Monbiot's calculation is that reductions must be above 90%, so you'll probably want to use the 90% figures with your own national averages. Most of the rich EU nations are in the mid-to-high 80s, and he doesn't offer figures for other nations. I leave it up to those from other countries to figure out whether they want to try for the 90% reduction, or choose another number - 80% or 85%.

If you use a renewable or sustainable resource that I haven't mentioned, email me. I'll add it to the list.

One of the things I think is most important is that we admit when/how/where we fail. We're trying to do something very difficult, and we're doing it without the support that would make this much easier. If there are places where a lot of people can't accomplish a reduction, this is a good argument for some kind of larger intervention.

Some things will be easy for one of us, but not another. I think food will be easy for my household, but gas a real struggle. Other people might find the opposite.

*Ultimately, this is a support network.* We're trying for real and radical change, and also to offer up a model for other people who might want to make these changes. *Be kind and be supportive.* We have an email group: [90PercentReduction-subscribe@yahoogroups.com](mailto:90PercentReduction-subscribe@yahoogroups.com)

Ok, here are the cuts. I've done my very best to make this simple. Whenever possible, I have rounded numbers, so that it would be easy to figure out specifics. Also, whenever possible I have used individual usage and short time periods. Unfortunately, I haven't always been able to find data for shorter periods or for individual usage, in which cases, I've put household, or annual figures. This is imperfect science, but you do the best you can - I think it mostly evens out. But final calculations will be made as yearly, household figures. That is, if your spouse has a job and you stay home with the kids, you can give some of your gas allotment over to her for her commute. And if you need a/c 2 months a year to survive, you can cut back more in the winter.

The estimates I'm giving for renewable resources may be controversial. I welcome discussion of the subject, or better guidelines - remember, better, but simple. I've tried to be very conservative - that is, I'm trying to err on the side of greater emissions reduction whenever possible. In that interest, I've measured, for example, the net energy return of some renewables as much lower than, say, a company that makes them would. For example, I give no credit at all for ethanol or biodiesel, since I think they are no better and perhaps worse. In the end, if you really disagree, feel free to use your own numbers, just explain how you are calculating things.

We're dividing this into 7 categories. You do the calculation for each one. We've included water, even though it isn't by itself a greenhouse gas problem, because water stress is one of the most serious and immediate consequences of global warming.

If you work out of the home, or spend large quantities of time out of your home, you should include calculations for your work environment, or school environment - % of your time, energy used, divided by number of people using it. Now you may not have much control over this measurement, and if you don't, I suggest you keep three tallies - one for home energy, one for work energy, and one for your total energy in each relevant category. But the good thing about including your work is that this offers incentives for trying to get your work to be more efficient as well. Who knows, you may fail, but it is worth a try.

### **Here are the 7 categories:**

**1. Gasoline.** Average American usage is 500 gallons PER PERSON, PER YEAR. A 90 percent reduction would be 50 gallons PER PERSON, PER YEAR.

- No reduction in emissions for ethanol or biodiesel.
- Public transportation and Waste Veggie Oil Fuel are deemed to get 100 mpg, and should be calculated accordingly.

**2. Electricity.** Average US usage is 11,000 kwh PER HOUSEHOLD, PER YEAR, or about 900 kwh PER HOUSEHOLD PER MONTH. A 90% reduction would mean using 1,100 PER HOUSEHOLD, PER YEAR or 90 kwh PER HOUSEHOLD PER MONTH

- Solar Renewables are deemed to have a 50% payback - that is, you get twice as many watts.
- Hydro and Wind are deemed to have a 4 to 1 payback over other methods - you get 4 times as many.

**3. Heating and Cooking Energy** - this is divided into 3 categories, gas, wood and oil. Your household probably uses one of these, and they are not interchangeable. If you use an electric stove or electric heat, this goes under electric usage.

- Natural Gas (this is used by the vast majority of US households as heating and cooking fuel). For this purpose, Propane will be calculated as the same as natural gas. Calculations in therms should be available from your gas provider.
- US Average Natural Gas usage is 1000 therms PER HOUSEHOLD, PER YEAR. A 90% reduction would mean a reduction to 100 therms PER HOUSEHOLD PER YEAR
- Heating Oil (this is used by only about 8% of all US households, mostly in the Northeast, including mine).
- Average US usage is 750 Gallons PER HOUSEHOLD, PER YEAR. A 90% cut would mean using 75 gallons PER HOUSEHOLD, PER YEAR. Biodiesel is calculated as equivalent.
  - Wood. This is a tough one. The conventional line is that wood is carbon neutral, but, of course, wood that is harvested would have otherwise been absorbing carbon and providing forest. There are good reasons to be skeptical about this. So I've divided wood into two categories.
  - Locally and sustainably harvested, and either using deadwood, trees that had to come down anyway, coppiced or harvested by someone who replaces every lost tree. This is deemed carbon neutral, and you can use an unlimited supply. This would include street trees your town is taking down anyway, wood you cut on your property and replant,

coppiced wood (that is, you cut down some part of the tree but leave it to grow), and standing and fallen deadwood. You can use as much of this as you like.

- o Wood not sustainably harvested, or transported long distances, or you don't know. 1 cord of this is equal to 15 gallons of oil or 20 therms of natural gas.

**4. Garbage** - the average American generates about 4.5 lbs of garbage PER PERSON, PER DAY. A 90% reduction would mean .45 lbs of garbage PER PERSON, PER DAY.

**5. Water.** The Average American uses 100 Gallons of water PER PERSON, PER DAY. A 90% reduction would mean 10 gallons PER PERSON, PER DAY.

**6. Consumer Goods.** The best metric I could find for this is using money. A Professor at Syracuse University calculates that as an average, every consumer dollar we spend puts .5 lbs of carbon into the atmosphere. This isn't perfect, of course, but it averages out pretty well.

The average American spends 10K PER HOUSEHOLD, PER YEAR on consumer goods, not including things like mortgage, health care, debt service, car payments, etc... Obviously, we recommend you minimize those things to the extent you can, but what we're mostly talking about is things like gifts, toys, music, books, tools, household goods, cosmetics, toiletries, paper goods, etc... A 90% cut would be 1,000 dollars PER HOUSEHOLD, PER YEAR

- Used goods are deemed to have an energy cost of 10% of their actual purchase price. That is, if you buy a used sofa for \$50, you just spent \$5 of your allotment. The reason for this is that used goods bought from previous owners put money back into circulation that is then spent on new goods. This would apply to Craigslist, Yardsales, etc... but not goodwill and other charities, as noted below. This rule does not apply if you know that the item would otherwise be thrown out - that is, if someone says, "If you don't buy it, I'm going to toss it." Those items are unlimited as well, because they keep crap out of landfills.
- Goods that were donated are deemed to be unlimited, with no carbon cost. That is, you can spend all you want at Goodwill and the church rummage sale. Putting things back into use that would otherwise be tossed should be strongly encouraged.

**7. Food.** This was by far the hardest thing to come up with a simple metric for. Using food miles, or price gives what I believe is a radically inaccurate way of thinking about this. So here's the best I can do. Food is divided into 3 categories.

#1 is food you grow, or which is produced **\*LOCALLY AND ORGANICALLY\*** (or mostly - it doesn't have to be certified, but should be low input, because chemical fertilizers produce nitrous oxide which is a major greenhouse contributor). Local means within 100 miles to me. This includes all produce, grains, beans, and meats and dairy products that are mostly either **\*GRASSFED\*** or produced with **\*HOME GROWN OR LOCALLY GROWN, ORGANIC FEED.\*** That is, chicken meat produced with GM corn from IOWA in Florida is not local. A 90% reduction would involve this being **AT LEAST 70%** of your diet, year round. Ideally, it would be even more. I also include locally produced things like soap in this category, if most of the ingredients are local.

#2 is **\*DRY, BULK\*** goods, transported from longer distances. That is, **\*whole, unprocessed\*** beans, grains, and small light things like tea, coffee, spices (fair trade and sustainably grown **\*ONLY\***), or locally produced animal products partly raised on unprocessed but non-local grains, and locally

produced wet products like oils. This is hard to calculate, because Americans spend very little on these things (except coffee) and whole grains don't constitute a large portion of the diet. These are comparatively low carbon to transport and produce. Purchased in bulk, with minimal packaging (beans in 50lb paper sacks, pasta in bulk, tea loose, by the pund, rather than in little bags), this would also include things like recycled toilet paper, purchased garden seeds and other light, dry items. This should be no more than 25% of your total purchases.

# 3 is Wet goods - conventionally grown meat, fruits, vegetables, juices, oils, milk etc... transported long distances, and processed foods like chips, soda, potatoes. Also regular shampoo, dish soap, etc... And that no one should buy more than 5% of their food in this form. Right now, the above makes up more than 50% of everyone's diet.

Thus, if you purchase 20 food items in a week, you'd use 14 home or locally produced items, 5 bulk dry items, and only 1 processed or out of season thing.

Ok, let me know what you think and if you are still in!

## 42 Responses to "90% Rules"

1. *GK4* Says:

[May 24, 2007 at 7:29 am](#)

Question:

You wrote, "A Professor at Syracuse University calculates that as an average, every consumer dollar we spend puts .5 lbs of carbon into the atmosphere."

Is this half a pound of carbon or half a pound of carbon dioxide? There is a big difference.

Do you have a citation for this?

2. *90% reduction « Grandiflora* Says:

[May 25, 2007 at 2:40 pm](#)

[...] So armed with a calculator and some utility bills I was on a mission. The rules/parameters are here [...]

3. *Have you lost your mind? « What's Your Name, Mommy?* Says:

[May 26, 2007 at 7:10 am](#)

[...] So after much hemming and hawing and soul-searching and, well, mathing, I've decided to give this 90% Reduction thing a shot. Fret not; this blog will not turn entirely into a logbook of my [...]

4. *Carol* Says:

[May 28, 2007 at 1:54 pm](#)

perhaps a dumb question, but are the Food percentages by dollars spent or volume? so when you say re: wet good "no one should buy more than 5% of their food in this form" are you

talking about money spent or food ingested (one can't eat shampoo, or at least I wouldn't want to..)

Thanks!

5. *sandra* Says:  
[May 31, 2007 at 6:55 am](#)

I think this is a great idea, and I am considering signing on.

I am happy that I kept scrolling down to actually see the steps to take to lay the "game" But, when you said that a 90% reduction would put me right there with a Chinese peasant, I wanted to stop reading. I'd like to give you feedback since your site is being read by many.

I don't know for sure, but most Chinese peasants have little or no control over income, social status and consumerism and are forced by a lack of infrastructure and government support to exist any other way.

Referring to them in the same paragraph as middle class voluntary energy reduction, to me, doesn't give proper acknowledgment of the inequality that affects so many people in the world. Just my opinion.

6. [My Fair Share » 90% emissions reduction challenge has started.](#) Says:  
[June 1, 2007 at 3:22 am](#)

[...] are 7 areas to focus on, with the following coming from Simply Living: Simplify and Reduce, where heaps more information is available: 1. Gasoline. Average American usage is 500 gallons PER [...]

7. [Lua Sage Fisher](#) Says:  
[June 1, 2007 at 9:07 pm](#)

My husband and I live in a small mountain cabin in the Colorado Rockies. We heat and cook with wood, get electricity from solar panels, haul water by hand, have a sawdust composting toilet, and drive to town 5 days a week for four months a year and once or twice a week the other eight months. We get Internet and VOIP phone access via a tower on our mountain that picks up a signal from a tower on the plains and then beams it down to our cabins.

I'm going to skip to #2 and come back to gasoline last.

#2. Electricity is difficult for me to figure out, since we are off the grid and have no Kwh measurement. Today the sun was obscured by clouds for the fourth day in a row and I had to start the generator, and run it for about four hours to charge the batteries. That used about 1.5 gallons of gasoline. I probably won't have to start up the generator for another week or so since we're heading into better weather. Other than that, electricity is free, but if I were figuring it out on a double number of watts - hmm...I just asked my husband how to figure out the kwh and he said he doesn't see anyway to do it.

#3. I get unlimited heating, because we cut down dead trees and are now engaged in a fire mitigation project and are cutting those trees necessary to improve forest health. Cooking is free since it's mostly done on the woodstove or outside in the fire pit. Sometimes when the generator is running anyway to charge the system, I'll use an electric stove top oven to bake in. I am going to build a solar oven this summer. I also eat a lot of raw food in the summer.

#4. Garbage. We have a major recycling project. All burnables are burned outside in the burn barrel. All garbage goes into the compost pile. All recyclables are dropped off at the collection point on the way into town. Anything else that simply must be thrown out, we take into town, that amounts to one trash bag per week, which is WAY under the limit. That bag weighs about 15 pounds tops - per week for two of us.

#5. Water. We haul our water by hand. This is therefore self-limiting because we use only what is vitally needed. It comes to about 24 gallons a week for inside the house. We have a non-electric James washer for washing clothes. Once a week: 36 gallons (three tubs). Gardening water is pumped from a surface water well, then watered back into the ground right above the well. My guesstimate on the amount would be around 100 gallons a week - for food to feed nine people, since I do the gardening for three households. Our share would therefore come to 22 gallons. Ok, so that is 104 gallons per week for two people - which comes to 7.4 gallons per day per person.

#6. Consumer goods. I went skyrocketing over the top limit this past year on this one - I got an insurance settlement and went a little nuts buying books. We also bought things like a crosscut saw in the event we lose gasoline for the chainsaw, a water filter for emergency water filtration should we lose the ability to buy lightbulbs for the UV system, a lot of dried foods and seeds - but mostly I bought books. I'm through spending now. We live on a small monthly retirement check plus a four month per year job. We make all presents, primarily from raw materials such as making leather out of deerskin and making clothes from that, beading earrings from seedbeads, making baskets from grasses gathered on the land, and pottery from clay processed from the land. REALLY raw materials, lol.

As for used goods - boy howdy are we involved in a giant used purchasing program right now! Some of that insurance settlement is being used to build my daughter a cabin up here. We found a company that is deconstructing a house and we're buying used building materials from them to build the cabin. I check Craig's list daily now for building supplies, and especially like the bartering list. Building materials would be thrown away otherwise, so they are free in terms of energy reduction.

#7. Food. I am spending five or more hours a day gardening, with the intention of making a MAJOR dent in next winter's food budget for all nine people who live on this mountain. This is my contribution to the community. That, plus I homeschool the children. Anyway, we'll be buying half of a grassfed cow, raised locally, about 30 chickens from the same farmer (pasture raised), will have all the soup and stew vegies we need for the entire winter from our own garden, have a greenhouse to produce all our tomatoes (sauce, ketchup, paste, sun dried, etc.) and our salad greens for three households all winter, we also have quantities of the bulk items mentioned (and don't drink coffee), and get whole, raw milk and eggs from a local farm. A couple of major deviations from this for us - we buy coconut oil from the Phillipines and cod liver oil from Norway. Also, I am still enjoying avocados from California, oranges from Arizona and bananas from somewhere south.

Back to #1.

Gasoline. It's a killer. I have a geo metro which gets 50 miles to the gallon, but we live 30 miles from town. I calculated the gasoline use and went over the limit before I finished the four month job calculations, much less the eight months when we only go into town once a week. I

can't imagine anyone who lives out in the burbs and drives into work managing to get this one down to the 10% level. With my little Geo and only calculating a daily trip for four months a year, that still came to 96 gallons for those four months alone. Then, I added in a once a week trip into town for eight months, and it's another 38 gallons, for a total of 144 gallons a year. What in the world can people who commute a distance 12 months a year and get 15-25 mpg do about reducing?

Suggestions for anyone who'd care to consider:

1. Toilet water wastage: Stop using the toilet, get a 5 gallon bucket, put it inside a box with a toilet lid, get sawdust, and build a compost bin in the back yard. See "the Humanure Handbook" for how to do it.
2. Plug the drain when taking a shower, then drain the water onto the vegetable garden so you can count it twice. And use a shampoo that wouldn't harm the plants.
3. Kitchen paper goods: Buy some flannel and make some kitchen towels. Use real dishes on picnics and wash them.
4. Babies' diapers: go back to cloth. Sucks, but so does energy wastage, lol. There are a lot of good ideas out there for making washable diaper covers so the diapers don't have to be pinned, but can be inserted into the covers and velcroed.
5. Consider buying a James Washer for clothes washing. It costs a bunch up front but saves on laundromat quarters or kwh of home electricity. It also cleans the clothes better than a machine!
6. Install a wood stove. If you live in a city, start scrounging construction sites and asking for scrap lumber (which, lol - would increase gasoline usage going to pick it up, sigh), look for pallets used in shipping, contact tree services to find out about getting scraps from them. My recommendation on a stove - the Big bear shepherd stove <http://www.transoceanltd.com/appliances/stoves/bigbear.html> because it both heats and is a great cookstove.
7. Measure water into gallon jars and then use the water from the jars so it's possible to keep track of how much is being used.
8. Make a family commitment to exchange all handmade presents from now on. Buy all clothes from thrift stores - nothing new, unless it is handmade.
9. Check out u-pick farms in the area and plan to harvest as much as possible, dehydrate, and store for winter food. Dehydrating food means you don't use energy to store it. Build a solar dehydrator so you aren't using energy to dry it.
10. Garbage. I had a hard time believing the amount of garbage generated per person! Wow. Ok, so the solution is to recycle, compost, and find a way to burn. Living in a city makes burning outside impossible, but if you get a wood stove, you can burn trash in the stove inside. If the wood stove is your sole source of heat, you can burn even during restrictions.



Hope someone might find something helpful here.

Lua

8. *sj* Says:  
[June 5, 2007 at 5:44 am](#)

I think this is all wonderful, and my partner and I try to live as minimally as we know how, and are learning more day by day, and encouraging others to do the same. We live in the city, we don't ever drive, we shop from farmers markets, use very little electricity, wear mostly vintage clothing and hand me downs and street finds, etc. We started Plug It Out for mass awareness, and love that this information is getting out there, really it's brilliant. But, what I fear is, that unless things can be worded more simply, and you explain things WAY MORE basically, you are going to alienate the average Joe, those in fact you really want to attract, the biggest consumers of all - the ones producing the most garbage, and who consume the most gas and electricity, REALLY need it simplified, straight to the point - a list of how to's. This is my experience over years of educating others, it may be sad but it's true, and I would like to see us getting this message out in a way that everyone will accept, rather than, by making it too scary for people, having a backlash..... ya know?

9. *Emme* Says:  
[June 5, 2007 at 7:07 am](#)

sj - This is precisely one of the reasons that we are doing this - blogging our experiences and started an email group. For support - and to figure out how to do what we need to do. I think that once we have this experience it will be easier to share with others who are new.

10. *Andi* Says:  
[June 7, 2007 at 12:22 pm](#)

I love this challenge but I have one question:  
I see that some folks are buying things to be able to live more simply for example the James Washer. Do purchases like this fall into consumer goods, or another category? I'd love to see your opinion on this because I'd like to see where an xtracycle would fit in 😊

11. *Week recap n stuff « What's Your Name, Mommy?* Says:  
[June 7, 2007 at 4:59 pm](#)

[...] also ends the first week of the Riot for Austerity/90% Reduction. I've been quite pleased with our results for this challenge, aside from the [...]

12. *Amy* Says:  
[June 11, 2007 at 1:26 pm](#)

My family has made many changes this year - My husband and I work together and when we moved further from the office we decided even though he works longer hours we will start driving in everyday together to save on gas. We no longer buy bottled water, we refill the bottles we have. Heating and cooling the house, we believe you can put on a sweater or take clothing off. We do a lot of donating of the things we no longer need - throwing things away is

not an option, someone is always in need. We try to use the new light bulbs they are making that are energy efficient if we can. We have become so aware of things around us we are always looking for a way to help save somewhere. I want to plant a garden on our land so we can grow our own food in the summer and can for the winter. Thank you for the great post and my family and I will continue to doing what we are doing and I hope others will too.

13. [Emily](#) Says:

[June 12, 2007 at 10:27 am](#)

Let's not forget non-consumer creators of carbon. For example, if I live in an apartment building, I could reduce my own heat usage by 90%...but I can also work to get my super to change from a 50 year old, 60% efficient oil furnace to something cleaner and more efficient.

14. [geminimama](#) Says:

[June 12, 2007 at 10:29 am](#)

This is great! What an inspiring goal to reach toward (if not entirely doable). I was planning on doing the 100-mile diet this summer anyway, but I like your rules better (and so will my husband who wouldn't be too happy without his coffee.) My one question: is CO2 the only issue here? Yes climate change is a huge problem and will require huge solutions, but to encourage more wood burning (with no mention of EPA-certified woodstoves or cleaner burning practices) will create immediate health threats due to particle emissions and toxics (yes wood burning is a huge source of mercury and dioxin). Not to mention your commenter who recommended burning TRASH!!! Which is not only illegal in many places (unfortunately not all) but a really really bad thing to do for your health (and the health of your family, neighbors and people and animals in the Arctic, where many of the toxics we emit tend to accumulate). Let's not try addressing one problem by creating more. Otherwise great suggestions. Good luck to everyone!

15. [The case for cloth « Simple Living: Simplify and Reduce](#) Says:

[June 13, 2007 at 9:25 am](#)

[...] 90% Rules [...]

16. [Jennifer Kubina](#) Says:

[June 14, 2007 at 7:10 am](#)

I want to suggest a modification to number 6, consumer goods. I'd agree with you 100% if the \$1000 limit were applied to stuff bought from big-box stores like Wal-mart or Target. But consumer goods made locally or from environmentally friendly materials (like organic cotton or FSC wood) are intrinsically more expensive. You could use the entire \$1000 on a single piece of furniture made by a local carpenter from reclaimed wood, whereas you would spend a fraction of the price on a similar object mass produced overseas from rainforest wood. So, I propose there be a metric similar to that for used goods, for items produced locally for people earning a fair wage.

17. [Emme](#) Says:

[June 14, 2007 at 7:17 am](#)

Jennifer - great point! I know that we count locally made soap as local Food (unlimited).

This is something to take into consideration. Locally made equivalent to the used goods. We did also talk about items that help with sustainability (i.e. a clothes line or James Washer) being an equivalent to a fraction of the price.

18. *Shawn* Says:

[June 14, 2007 at 7:22 pm](#)

Cut down on disposable shavers - Sharpen them with a Razor Shaver. I bought one and love it!  
<http://www.lehmans.com>

19. *LizM* Says:

[June 15, 2007 at 8:55 am](#)

I would love to see a 90% reduction in plastic added to the list. It is lightweight and therefore unlikely to loom large in the garbage category, but it is disproportionately damaging to the environment.

Also, are you counting what goes down the disposal, or what goes out in the garbage can only? Because .45 lbs. per person per day of food scraps is going to be tough unless you compost (which, by the way, I heartily recommend.)

20. *superkk* Says:

[June 15, 2007 at 2:54 pm](#)

I'd like to join in. I'll devote today's blog post to it (don't expect to see it till this evening). I've blogged about several of these categories myself, and to be honest, there's not much more blood I can squeeze out of the turnip in several categories....

21. *Brian M.* Says:

[June 18, 2007 at 12:10 pm](#)

I think you should use the EPA's waste DISCARD rates, instead of the waste generation rates. The waste generation rates include waste that will be composted, recycled, or burned for energy reclamation. The EPA estimated 2.46 lb of waste was discarded per person per day in the US in 2005, (not counting waste that was ultimately composted, recycled, or burned for energy reclamation). That means 1) Americans ALREADY compost or recycle about 1/2 our waste, and 2) 90% austerity in garbage generation should probably be around .25 pound per person per day, but exempt compost and recycling.

22. *Simple living « \$20 at the used book store* Says:

[June 19, 2007 at 3:31 am](#)

[...] 90% rules: AKA the Riot for Austerity. Begun in the belief that change begins at home, and that most Western [...]

23. *Another day of links « Enthusiastically Human* Says:

[June 19, 2007 at 2:07 pm](#)

[...] I love this—can you live reducing materials use by 90% [...]

24. [Cool. 90% Personal Emissions Reduction Begins In Our Garden... « The Hot Potato](#) Says:  
[June 20, 2007 at 6:16 pm](#)

[...] are seven categories on the 90% Reduction list, which we highly recommend you read more about for stats on the average [...]

25. [Corey Jacob](#) Says:  
[June 20, 2007 at 6:31 pm](#)

ouch the average refrigerator uses 90kwh per month...

26. [First Things First.. « Sad Little Garden](#) Says:  
[June 21, 2007 at 4:04 am](#)

[...] from the Rules for the Riot for Austerity 90% Emissions Reduction [...]

27. [Allison from Maryland](#) Says:  
[June 23, 2007 at 5:20 pm](#)

I would have to agree with sandra's comment against the comparison to a Chinese peasant. I put faith in the assumption that there was no negative implication whatsoever in your choice of comparison, but regardless I do feel that the word "peasant" should be replaced.

I have, over my lifetime of development, been drawn blissfully and achingly into the community of environmentalism and community gardening, and I think that this project is amazing. It is because it's not declaring that it is infallible or shouting by megaphone into crowds, but rather is completely open to trial and error and unpretentious. And simultaneously driven to the last to make a difference. I am starting today and will spread the seed! Thank you.

28. [Liz](#) Says:  
[June 26, 2007 at 12:32 pm](#)

Very intrigued by your project and thinking. Going to give this url to as many as I can. I'm living on about 40 acres for my lifetime, but intend that as much as possible of that be given as sanctuary for the local wildlife flora and fauna (which don't have much of a chance elsewhere). Thanks, Liz

29. [Sanity](#) Says:  
[June 29, 2007 at 3:28 am](#)

You really are all as mad as hatters aren't you?

CO2 change has never had a noticeable effect on temperature.

30. [Wayne](#) Says:  
[June 29, 2007 at 9:44 am](#)

Someone above mentioned gathering construction scraps to burn in a wood burning stove / fireplace. You have to be really careful when you do this. Plywoods and MDF board are built using formaldehyde based glues which would be released into your home when burnt. Also many woods in construction are treated with arsenic and other chemicals these days. These make them more resistant to rot, mold and pests but are not something you want to burn. I get my wood from people who have had to remove a tree or severely trim it due to death or disease. Just let it cure for a year (6-9 months if you live in a dry desert like I do) and you are good to go. It will also burn slower and hotter than most construction wood, giving you more value from the wood.

Personally, I will follow some of these practices and get my usage down as low as possible. Our family of 5 already has our weekly trash down to 20 lbs or so. Its illegal to do gray water collection but I want to set up rain collection to help offset, even though we haven't seen rain for 16 months here. I only drive 75 miles a week and do all my shopping within that drive but I work from home. Electric consumption will be the hardest. No matter what I try, I can't get it under 500 Kilowatt hours a month. Can't store locally grown meat without a freezer. It can be 110 degrees outside by noon in the hottest months and so forth. Though we use fans in each room as opposed to the central air. Running central air would put me over 2400 kilowatt hours in the summer months, just to keep the house at 85 degrees inside. If I could do wind or solar, I would but not feasible in the current location.

31. *Mark Says:*

[June 29, 2007 at 3:21 pm](#)

I live in an older neighborhood near downtown Houston. The two biggest challenges here are gas and electricity for AC.

Gas by far the bigger of the two, as I can see few solutions to the problem. Houston is a car city and isn't, at least in my neighborhood, bike or pedestrian friendly: narrow streets, few passable sidewalks, and drivers that are not at all bike/pedestrian friendly. Although I work less than three miles from my house after a few harrowing near misses from cars and then one direct hit, I decided that it wasn't worth the risk on those few days a year when the weather allows for a bike ride. (Houston's 90+ heat and 90+ humidity much of the year make it difficult to bike to jobs where you wear a suit, as I do.)

I do bike around the 'hood for errands such as the grocery store and farmers market, but that's really about it.

Public transportation in Houston seems mostly geared to moving workers from the suburbs to downtown during the week. Getting around the city by bus is difficult and very time consuming — assuming there is a bus route anywhere remotely near where you need to be.

I've cut my driving to under 5,000 a year (which includes a monthly 120 each way trip to check on and help take care of my elderly mother). I drive an older car and get 18/30. I've thought of getting a car with better mileage, but realized that it takes a good deal of energy to build a new car and get it to me (no doubt from somewhere overseas since Detroit can't seem to understand that we need economical / ecological cars).

I keep detailed car records, and last year I used 246 gallons of gas. I don't know where your 500 gal / person / year figure came from? Seems low to me. I work with a man who commutes 40 miles each way every day. Not at all uncommon here in Houston's ridiculous sprawl. He drives a Lincoln Navigator and gets about 8 miles / gal. He burns about 10 gallons a day! That's over 2,500 gal / year just getting to and from work. He generally puts about 25K miles a year on his car.

So I figure I'm doing okay. But still no where near the 50 gal/year figure. Not sure I can do anything but small incremental reductions. Open to any suggestions from other urbanites in large car cities (Atlanta, anyone?).

As for AC ... another tough one. When I first moved to Houston I worked outdoors at a garden center for two years. Barely used the AC at all in the summer at home, since my body was acclimated to the heat. Now, I work in an office where the AC is set at a cool 68 degrees (all the men are wearing wool suits and ties, after all!). At home I keep it on 85 in the summer, but still have high bills. However, my winter heating bills are almost nonexistent. I'm trying to figure out how to look at total household climate control energy expenditures (heat & AC) and compare my annual energy expenditures against norms. Any ideas?

Mark  
Public transportation isn't much of an option either

Our public transportation options are very limited

32. *Wayne Says:*  
[June 29, 2007 at 7:41 pm](#)

I live roughly 45 miles outside of Los Angeles. For most people to get a good paying job in the area you need to work for a government agency or commute to the city. When I was commuting to Los Angeles I was using 10 gallons every three days. 90 miles round trip and it wasn't freeway mileage because its stop and go the entire time. That is roughly 1220 gallons a year, just for commuting to work. It doesn't include errands or other trips. 50,000 people commute every day from my area to Los Angeles and we are just one of the outlying suburbs. I used to do 20K miles a year on my car. Now I work at home and we probably drive 3000 miles or less a year. Don't really keep too close of a track. We fill the car up (14 gallons) every 3 weeks or so and get 18 miles to the gallon currently. The bulk of that is a once a week 80 miles round trip to pick up my children.

Suburban sprawl is the killer and is what causes a lot of the pollution in this country.

33. *Crafty Green Poet Says:*  
[August 7, 2007 at 11:04 am](#)

LOL! I can buy as much from second hand shops as I want! That really helps my book problem! Seriously though, this is a great list of ideas. When I look at the average consumption in detail, the 90% reduction actually doesn't seem too much of a challenge.

34. *Possum Says:*  
[August 20, 2007 at 7:35 pm](#)

I live with my partner in a 850 sq ft house in San Francisco, and here is our household baseline for a few of the items:

Electricity - 2,339 kwh/year, ranges from low of 66/month in Summer to high of 540/month in Winter. Currently at 21% of US household average, largely due to mild climate and some conservation steps (CFL throughout house).

Gas - 85 therms/year, or 7 per month. Range is from 6/month in Summer to 9/month in Winter. 9% of US Average, largely due to using gas only to heat water, and having water heater set just above “vacation” setting. Showers are warm but by no means hot.

Water - 40 gallons per person/day in Summer. 40% of US Average. And we have a garden that we water! 1.6 gal/flush toilet and low flow shower head. Trying to move from a “tropical” garden to drought-tolerant natives. Goodbye lush green, hello brown grasses!

Transportation - My partner works for a travel marketing company .. how do you even begin to calculate the impact? I imagine special places in the afterlife for people in marketing. Although he makes probably 20 trips by plane each year, neither of us have had a car in 10 years, and I do not fly. But I have traveled 800 miles in a car this year, and 200 miles by intercity train. Add to that another 150-300 miles by local transit.

We’re 90% vegan (occasional slice of pizza), subscribe to a CSA, and try for as much local food as possible.

So I can’t possibly do 90% .. what is a reasonable percentage reduction to shoot for?

35. *Chris* Says:

[August 21, 2007 at 4:55 am](#)

Hey Sanity. Even if you don’t believe in the benefits of CO2 reduction, there are other benefits to using less resources. Using less electricity will help stave off our oil running out for a little while longer. Using less water will ensure water security and mean fewer dams need building, which helps the the river system flow naturally, meaning a healthy ecosystem. Using less gas will reduce smog incidence in large cities. As well as all this, we’ll save us \$! one could go on...

Of course you might not have implied in your comment that there are no other benefits, but anyway there you all go 😊

36. *Stephanie* Says:

[September 15, 2007 at 9:47 pm](#)

I live in an apartment with electric everything—heat, stove, oven—no gas. Do you have any suggestions on how to modify my allowances since I use more electricity but no gas/wood/oil in the apartment?

37. *Alice* Says:

[October 9, 2007 at 3:37 pm](#)



Wonderful idea for the dedicated. I dig living increasingly simpler (no car, no heat, no plastic contacting food, income below taxable amount (see <http://www.nowartax.org>)etc.) and any recording must be SUPER simple. Thank you Brian (of 6/18 post).

38. *STM* Says:

[October 16, 2007 at 11:07 am](#)

What great ideas you have here! But I, too, would like to know if there are any modifications to the allowances of those who operate on nothing but electricity. For our 1600 sq ft home in suburban SE Pennsylvania, our most recent (9/5/07 to 10/14/07) use was 467 kWh. Our average to date is 1289 per month, down from the 1500s 3 years ago. I expect that average to grow gradually even lower because we have recently replaced all of our incandescents with CFLs, and I have not used my clothes dryer since June. We've also recently added more insulation and replaced two outer doors and added storm doors. (Our house was basically an expensive fixer-upper.) PS. Our water use is currently averaging out to 49 gallons a day for a household of 3, which comes to about 16 gallons per person/day. It's not hard to keep track if you read your water meter every day.

39. *STM* Says:

[October 16, 2007 at 11:17 am](#)

OOPS! I see that I should have read all the comments before posting this, as my question regarding all electric was answered in the FAQs comments. Thanks!

40. *cynthia* Says:

[November 28, 2007 at 2:16 pm](#)

I drive very little but am planning an intercontinental flight this summer. Does anyone know how much fuel such a flight would use (per person)?

41. *cindyw* Says:

[January 23, 2008 at 8:24 pm](#)

Great idea - was referred to site by someone who knows Sharon's from peak oil conferences. But I too must squawk about the gasoline - I LOATHE car travel and was very happy to not have owned a car from when I left parents' house at 17 until I was 37 - 18 years ago ( do I get carbon credits for 20 years' carlessness?). Most of that time lived in NY boroughs/Westchester/Los Angeles (bus system) or DC and I so much prefer public trans (daughter of a railroad traffic controller too) that you can't imagine - I hated cars long before all this concern. However - here in Yellow Springs, Ohio there is NO public transportation (except bus for disabled call 2 days in advance if available). You can drive to Wright State U on edge of Dayton and then do buses, or you could carpool if anyone would do it with you, but hardly anyone wants to who has a car (lots of people here bike & walk and wish they had rides). No living wage jobs here either to speak of - so I drive 8 mi each way and go to visit 90-year-old mom 181 mi away every 2 months. One long car trip back to NY state a year for husband (Herkimer County native and we both love that country). We do lots of things and just thought it was us - wear recycled clothes (I had a funny pic from Adbusters in the '90s of a "downshifter" - Michael Jacobson started a group in the '80s called Center for Study of Commercialism, how I first heard of Bill McKibben). Parents went through Depression, were



very frugal. Also used to read Plain magazine in the '90s (anyone else remember them? from Barnesville, Ohio?) Husband rehabs street-found furniture, grows food in back yard (and former landlords mad at him - say we owe them \$750 to clean up garden; current landlords don't allow garden - but we found their old grape vine!!). We do have carfree days weekends. Dry clothes on clothesline or rack if possible. But big usage of lights and heat ...

42. [R4A April Electric Bill « Learning to Step Lightly](#) Says:  
[April 10, 2008 at 6:47 am](#)

[...] upon the Riot for Austerity numbers, I have taken the Average Annual American Household (AAAH) figures and divided by 12 for [...]